



A PRACTICAL APPROACH TO HAZARD IDENTIFICATION

For Operations and Maintenance Workers

Center for Chemical Process Safety
New York, New York



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For Operations and Maintenance Workers

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PREFACE

The ability to recognize and respond to hazards at the field level is important to the safety of workers at any facility. While hazard identification may be viewed as a first step towards formal risk analysis, some situations require immediate action if serious incidents are to be avoided. This book is about identifying, ranking and addressing workplace hazards so that all workers can return home safely at the end of a work day.

As an experienced process operator or maintenance technician, you have acquired considerable skills and knowledge. Some of this knowledge makes you aware of workplace hazards such as pinch points, moving machine parts or objects falling from elevated heights. That knowledge was likely gained with time through minor encounters resulting in the wisdom of “common sense”. Process or chemical hazards, though relatively safe when they are enclosed within equipment, can result in fires, explosions or toxic effects when they escape to the open air. You may not be aware of your exposure to these during normal work. Process hazards are less obvious than physical hazards and cannot always be detected at first glance. Consequently, some additional effort and different strategies may be required to identify process hazards so that they are addressed appropriately.

This book contains many photographs of hazards, abnormal situations and consequences of incidents. It explains what was learned and how you might use this information along with your skills and senses to improve workplace safety. We hope that you are able to apply the material provided here to better anticipate and prevent problems from occurring. In the future, if you find yourself effectively managing a hazardous situation with the help of this book, then we will have succeeded in our endeavor. The photographs and figures presented in this book were either (a) taken from public sources, (b) contributed by subcommittee members, or (c) created specifically for this book. CCPS is grateful for the contribution of photographs and figures.

The Center for Chemical Process Safety (CCPS) has published over 90 reference textbooks dealing with various aspects of process safety since 1989. Many of these were written from a technical perspective to help with program implementation. This concept book is our first CCPS publication intended for field use and we hope it will provide value to all users.

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